

We claim:

1. A method of load-based billing for customers in a communication network, the method comprising:
 - monitoring utilization of the network in real-time via a switching center in the network;
 - detecting at the switching center a reportable statistical event based upon the occurrence of a predetermined event trigger;
 - informing a usage level application of the reportable statistical event;
 - determining at the usage level application whether a Usage Level Event has occurred;
 - recording at the usage level application the Usage Level Event, when it is determined that a Usage Level Event has occurred;
 - reporting the Usage Level Event to a set of network elements via the usage level application and the switching center, when it is determined that a Usage Level Event has occurred, the set of network elements including a customer billing platform and a broadcast message application; and
 - notifying a set of customers of a change in pricing for calls based upon the Usage Level Event through the broadcast message application and a messaging center, when it is determined that a Usage Level Event has occurred.
2. The method defined in claim 1, wherein the predetermined event trigger comprises an upper threshold, a lower threshold, a trending threshold, or a duration threshold, or a combination of these thresholds.

3. The method defined in claim 1, wherein the determination of whether a Usage Level Event has occurred is based upon an upper threshold, a lower threshold, a trending threshold, or a duration threshold, or a combination of these thresholds.
4. The method defined in claim 1, wherein the communication network comprises a wireless network and the switching center comprises a mobile switching center.
5. The method defined in claim 4, wherein the set of network elements further includes a prepaid platform.
6. The method defined in claim 4, further comprising:
 - via the switching center, writing billing records for the customers and marking calls in the billing records that are based upon the Usage Level Event; and
 - transferring the billing records to the billing platform.
7. The method defined in claim 4, further comprising:
 - determining at the usage level application that a Usage Level Event should be terminated based upon a set of usage event termination criteria;
 - informing the prepaid platform, the messaging center, the broadcast message application, and the mobile switching center that the Usage Level Event has terminated; and
 - notifying the customers via the messaging center that the change in pricing has terminated.
8. The method defined in claim 4, wherein:
 - the utilization of the network includes radio network occupancy, trunk occupancy, call processing occupancy, signaling occupancy, or a combination of these.

9. The method defined in claim 1, wherein the communication network comprises a multimedia communication network and the switching center comprises a call session control function.

10. The method defined in claim 1, wherein the communication network comprises a landline network and the switching center comprises a landline switching office.

11. In a communication network, a method of load-based billing for a service provider of communication services having a plurality of customers, the method comprising:

- monitoring utilization of the network in real-time via a switching center in the network;

- detecting at the switching center a reportable statistical event based upon the occurrence of a predetermined event trigger;

- informing a usage level application of the reportable statistical event;

- determining at the usage level application whether a Usage Level Event has occurred;

- recording at the usage level application the Usage Level Event and a scope of the event, when it is determined that a Usage Level Event has occurred;

- sending a message to a targeted marketing application, the message indicating the Usage Level Event and the scope of the event;

- retrieving from a subscriber database billing rate information for the calling plans based upon the Usage Level Event;

- querying the targeted marketing application for information concerning the customers that are active within the scope of the Usage

Level Event and the calling plans that are impacted by the Usage Level Event; and

sending a message to the customers that are active within the scope of the Usage Level Event, the message including a notification to the customers of a temporary change in pricing based upon the Usage Level Event.

12. The method defined in claim 11, wherein:

the communication network comprises a wireless communication network;

the switching center comprises a mobile switching center;

the subscriber database comprises a home location register; and

the messaging center comprises a short message service center.

13. The method defined in claim 11, wherein the message from the short message service center includes a customer list parameter, the customer list parameter comprising an identifier for groups of customers or discrete customers.

14. An apparatus for load-based billing of subscribers in a communication network, the apparatus comprising:

a plurality of communication devices operative to receive and transmit at least one of voice, text, multimedia and data communication;

a switching center operative to route calls to and from the communication devices in the network and monitor the utilization of the network;

a subscriber database operative to store subscriber profile information and location information;

a messaging center operative to direct messages to and receive messages from the communication devices;

a billing platform operative to receive call detail records from the switching center;

a usage level application operative to analyze load usage in the network and determine whether a Usage Level Event has occurred; and

a broadcast message application including a set of predetermined messages relating to Usage Level Events.

15. The apparatus defined in claim 14, further comprising a targeted marketing application operative to target messages to specific customers in the network.

16. The apparatus defined in claim 14, wherein:

the communication network comprises a wireless communication network;

the switching center comprises a mobile switching center;

the subscriber database comprises a home location register; and

the messaging center comprises a short message service center.

17. The apparatus defined in claim 14, wherein:

the communication network comprises a multimedia communication network;

the switching center comprises a call session control function; and

the subscriber database comprises a home subscriber service.

18. The apparatus defined in claim 14, wherein:

the communication network comprises a landline network;

the switching center comprises a landline switching office; and

the subscriber database comprises an internal subscriber record database.

19. An apparatus for load-based billing of customers in a communications network, the apparatus comprising:

means for monitoring utilization of the network in real-time;

means for detecting a reportable statistical event based upon the occurrence of a predetermined event trigger;

means for informing a usage level application of the reportable statistical event;

means for determining at the usage level application whether action should be taken based upon the Usage Level Event;

means for recording at the usage level application the Usage Level Event, when it is determined that a Usage Level Event has occurred;

means for reporting the Usage Level Event to a set of network elements via the usage level application and the switching center, when it is determined that a Usage Level Event has occurred, the set of network elements includes a billing platform and a broadcast message application; and

means for notifying the customers of a change in pricing for calls based upon the Usage Level Event through the broadcast message application and a messaging center, when it is determined that a Usage Level Event has occurred.

20. The apparatus defined in claim 19, wherein the event trigger comprises an upper threshold event, a lower threshold event, a trending threshold event, or a duration threshold event, or a combination of these events.

21. The apparatus defined in claim 19, wherein the communication network comprises a wireless network and the switching center comprises a mobile switching center.
22. The apparatus defined in claim 19, wherein the set of network elements further includes a prepaid platform.
23. The apparatus defined in claim 19, further comprising:
means for writing billing records for the customers and marking calls in the billing records that are based upon the Usage Level Event; and
means for transferring the billing records to the billing platform.
24. The apparatus defined in claim 19, further comprising:
means for determining at the usage level application that a Usage Level Event should terminate based upon a set of event termination criteria;
means for informing the prepaid platform, the messaging center, and the mobile switching center that the Usage Level Event has terminated;
means for notifying the subscribers via the messaging center that the change in pricing has terminated.
25. The apparatus defined in claim 19, wherein the utilization of the network includes radio network occupancy, trunk occupancy, call processing occupancy, signaling occupancy, or a combination of these .
26. The apparatus defined in claim 19, wherein the communication network comprises a multimedia communication network and the switching center comprises a call session control function.

27. The apparatus defined in claim 19, wherein the communication network comprises a landline communication network and the switching center comprises a landline switching office.